



# **Annual Report**

*2015/2016*

## ***Introduction***

This annual report details the tenth year of Saskatchewan Oat Development Commission (SaskOats) operations. This is the Nineteenth year that oat growers from Saskatchewan, Manitoba and Alberta have worked together to give voice to the needs of oat growers.

In 2016 the SaskOats board voted to use the trade name "SaskOats" to be more descriptive of the organization for producers and to align better with the other commissions. A new logo, as displayed one page one, was developed and approved by the Saskatchewan AgriFood Council and this logo and trade name is now in full use.

Shawna Mathieson is now in her sixth year as Executive Director of the Prairie Oat Growers Association, SaskOats as well as the Alberta and Manitoba oat commissions. She leads all the administrative duties of the three provincial organizations as well as POGA.

## ***POGA***

SaskOats is currently the largest funding partner in POGA, the prairie wide organization representing oat growers in Western Canada. POGA funding partners include SaskOats, the Manitoba Oat Grower Association (MOGA) and the Alberta Oat Growers Commission (AOGC). MOGA and AOGC are the equivalent oat grower check-off funded organization in their respective provinces.

All six Saskatchewan directors are represented on the POGA board. Currently there are also six directors from Manitoba and six directors from Alberta on the POGA board.

The goal of POGA is to handle all administration duties of the provincial organizations and the overall approval and monitoring of projects of mutual benefit to SaskOats, MOGA and AOGC. Some projects continue to be provincially directed and therefore funded directly from the provincial organization. SaskOats examples of this include our commitment to the Crop Development Center at the University of Saskatchewan, the Indian Head Ag Research Farm, Ag in the Classroom, Saskatchewan Oat Variety trials and two SaskOats funded projects also being conducted at the University of Saskatchewan: "Integrated Weed Management Strategies to Maximize Oat Production" and "The effect of Pre-Harvest Glyphosate on Quality of Milling Oats."

## ***Education***

One priority of SaskOats has been the education of our youth on the merits and opportunities of agriculture in Saskatchewan. SaskOats provides an annual commitment to Ag in the Classroom of \$15,000 to help promote this priority.

The Oat Scoop newsletter is distributed a minimum of two times annually to the membership and oat industry organizations.

SaskOats is a member of Crop Week and CropSphere. SaskOats held their Annual General Meeting at CropSphere in 2015 and 2016 and plans to do so again in 2017. CropSphere is an Agricultural conference held in Saskatoon focused on addressing

the needs of producers across multiple crops. CropSphere runs sessions on market outlook, research, and agronomy, along with crop specific sessions.

SaskOats is co-host to the POGA annual conference, a day-long seminar on oat production and marketing seminar held every third year in Saskatchewan. In 2015 this event was held in Moose Jaw, SK where over 130 people, including over 75 farmers, attended.

As a partner to the Prairie Oat Growers Association, SaskOat directors have been active ambassadors to the oat milling and processing side of the industry.

For the past nine years SaskOats has sponsored the championship oat class at Harvest Showdown Grain Show in Yorkton – one of the few shows for commercially grown grains.

### ***Policy***

SaskOats, through POGA, holds a membership in Grain Growers of Canada which represents oat growers on many policy issues at the national level. A current issue facing oat growers is the proposed mycotoxin standards in food grains in Canada. SaskOats and POGA are actively providing input into these standards, have co-funded a publication of a study addressing these standards and are conducting further research, through the Canadian Grain Commission to measure the occurrence of fungi and mycotoxins on oats. This project is partially funded by the Agricultural Development Fund (ADF) of Saskatchewan. In addition, SaskOats, through POGA is funding a project titled “Mitigating mycotoxins in the Canadian food value chain,” led by Food and Consumer Products Canada and partially funded by Western Grains Research Foundation and many industry participants. This project supports the development of the tools needed to manage the new reality of possible mycotoxin regulation, including tracking changes in mycotoxin profiles, developing rapid and reliable methods for sampling and testing Vomitoxin, also known as deoxynivalenol (DON) and Ochratoxin A (OTA) at wheat grain elevators using aspirated dust particles, develop best practices for post-farm storage and processing to minimize the development of OTA, develop independent capacity to reliably test for emerging mycotoxins, and develop reliable, rapid, cost effective tests to quantify the presence of fungi responsible for toxin production both in raw and processed grain. The SODC and POGA Executive Director, Shawna Mathieson, also attended the World Mycotoxin Conference in Winnipeg, MB in June 2016 to ensure the organization is staying abreast of new issues and solutions regarding mycotoxins.

SaskOats, through POGA, is also represented at Western Grains Research Foundation (WGRF), The Prairie Grain Development Committee (PGDC), Saskatchewan Weed Committee, Canadian Field Print Calculator and The Canadian Roundtable for Sustainable Crops (CRSC).

SaskOats, through POGA, has taken a very active role in the transportation issues that have plagued Canada. POGA President, Art Enns, presented to the House of Commons Standing Committee in May 2016 and four representatives from the POGA board in addition to POGA staff, also travelled to Ottawa in April 2016 to meet with the federal government. One aspect of this trip was to express concerns over the expiration of the Fair Rail for Grain Farmers Act that, in June 2016 this was extended by 1 year. An additional goal was to get a post-doc student approved under Dr.

Jennifer Mitchell Fetch at AAFC Brandon due to her upcoming retirement. AAFC has agreed to this with the expectation that this person will be in place in early 2017. In addition, Art Enns, POGA President, was asked to participate in a meeting with the Federal Minister of Transportation in July 2016 where POGA was the sole producer-only group represented. POGA also participated in a similar meeting with the Federal Minister of Agriculture in Winnipeg in July 2016 regarding the new policy framework set to be released in 2018 and Mathieson represented POGA and SODC in Saskatoon in October meeting with the Federal Minister of Agriculture and the Federal Minister of Transportation. Finally, SaskOats participated in consultations with the Government of Saskatchewan regarding upcoming New Policy Framework preparation.

POGA directors, and our Executive Director, have also been active advocates to the oat milling and processing side of the industry by attending and speaking at the North American Millers Association annual conference each year for the past eight years. Our strong industry support is demonstrated by our invitation to these meetings to provide a “producer perspective.” Oats continues to be the only commodity group represented at this event. In September 2016, Enns also represented POGA at the Canadian Millers Association meeting held in Winnipeg.

SaskOats has an ongoing dialogue with our provincial government and the SaskOats directors met again with the Minister of Agriculture, Minister Stewart in October of 2016 to discuss several current issues relating to oat growers.

### ***Research and Market Development Projects***

SaskOats’s three year commitment of \$80,000 per year to the Crop Development Center (CDC) in Saskatoon expired on July 31, 2016. SaskOats entered into a new multi-year commitment with the Crop Development Centre for \$80,000 annually with the funds again being targeted to agronomy studies, plant pathology, and plant breeding in addition to the individual projects SaskOats is funding at CDC.

SaskOats, through POGA, funds “Investigation of Avenanthramides, a New Healthy Compound in Oat” at the University of Saskatchewan. This project hopes to improve the nutritional value of oat through increasing the level of avenanthramides, novel bioactive compounds in oat that have strong antioxidant, anti-inflammatory and anti-itching activities. POGA will be contributing \$90,000 over three years with the remainder of the funding coming from WGRF and ADF.

Another project “Response of Oat Yield and Quality to Different Harvesting Approaches” was solely funded by SaskOats in 2014-2015. The objective of this research is to determine whether glyphosate application adversely affects oat yield, quality, and functional composition compared with windrowed or direct cut oat plots that have not received glyphosate as a harvest aid. In April 2015, Grain Millers Inc., one of the largest miller of oats in North America, announced that the company will no longer purchase oats that have received a glyphosate application. This decision was made based on issues related to the quality of oats treated with glyphosate, but there is currently no research that compares glyphosate as a harvest aid to windrowed oats. We are seeking to respond to oat growers’ needs rapidly in order to address these and any further developments on this issue. Based on this research, the lead researcher, Chris Willenborg, applied and was approved for ADF funding to expand and continue this project for the next three years. The new project titled

"The effect of Pre-Harvest Glyphosate on Quality Milling Oats" began in 2016 and SaskOats is paying 25% of this cost.

In 2013, SaskOats committed to budget \$12,000 per year for three years to post registration variety performance trials by the Saskatchewan Variety Performance Group. In 2016, SaskOats again approved this commitment for another 3 years.

SaskOats, through POGA, continues to fund and administer an oat breeding collaboration project with the industry and the Government of Canada under the AgriInnovation program. This project, called the Prairie Oat Breeding Consortium (POBC) is designed to fund a breeding program aimed at developing food and milling quality cultivars adapted to the western provinces. POGA has agreed to fund 25% of the costs of this program in collaboration with a group of eight oat industry stakeholders. The Manitoba Oat Growers Association pays the full cost of the POBC membership.

SaskOats, through POGA, also provides financial support to Oat Advantage, a private oat breeding program, for further oat breeding in Saskatchewan. This funding supports four main goals 1) Improved oat line quality selection for low hull content 2) Improved oat line selection for variation of groat surfaceborne trichomes (hairs) 3) Improved seed purity in early generation harvest and 4) Steady flow of breeding material through winter nursery utilization.

SaskOats, through POGA, received funding through AgriMarketing starting in the 2015-2016 year to advance the Canadian Oat Market in Mexico. The goals of this project include increasing the per capita consumption of oats and therefore increasing the amount of Canadian oat exports to Mexico in addition to securing a consistent and large percent of their current oat needs. As part of this, POGA will work directly with the government of Mexico regarding their food security and nutrition programs and with the Mexican nutrition and dietician's community to incorporate more oats into the Mexican diet. In 2015 Canada saw oat exports to Mexico approximately double from the prior three year average and reach a 5 year high. We hope to continue this success in the coming years to help diversify the market for Canadian oats.

Finally, SaskOats, through POGA, provides funding for two additional research projects at The University of Saskatchewan: Healthier Oat Oil Through Improved Stability, and Fatty Acid Profile and Improving the Nutritional Value of Oat Through Increasing the Level of Water-Soluble Beta-Glucan. Both of these projects seek an oat with innovative nutritional and processing traits that will be desirable to consumers and industry while helping Canadian Prairie oat growers maintain (and potentially grow) their role as an important supplier of high value oat. Both of these projects were completed in 2015/2016.

Another project funded through POGA, being completed at the University of Alberta, is the project titled "Development of an Oat Based Beverage." This collaborative industry project will focus on developing two oat protein based beverages. The initial oat based beverage will be developed in collaboration with Oatdeal, based out of Saskatoon and will be a ready to drink oat protein enriched product. The second will be a nutritious oat based beverage that possesses the necessary sensory and nutritional properties to improve the quality of life of patients who are undergoing radiation therapy.

An extension of the Development of an oat Based beverage is the “Development of an OatDeal Coffee Additive (Creamer).” Approximately 65% of global consumers drink at least one cup of coffee per day, and 37 billion cups of coffee with non-dairy creamers are consumed annually. Consumer demands for nutrition, convenience and plant proteins/fibres is generating a new market opportunity within the coffee creamer market. Through this research, The University of Alberta hopes to develop a nutritious, functional oat based coffee additive that combines protein, beta glucan and a probiotic into a functional and competitive lactose free coffee additive. This developed product will be the first of its kind on the market, and could generate a new market opportunity for, and consumer awareness of, oats.

Another project funded by POGA at the Indian Head Agriculture Research Farm is Crop Sequencing of Large Acreage Crops and Special Crops. The objective of this project is to determine the effects of a preceding crop using several large area plots and several special crops. The crops in this rotation will include Wheat, Oats, Canola, Pea, Canary seed, Hemp, Quinoa, and Coriander. Moisture and residual N at beginning of second year, plant density, volunteers during growing season of second year (counts and biomass), grain yield and grain quality will all be assessed.

SaskOats, through POGA, is also funding “Transposon-Mediated Activation Tagging in Oat” at McGill University. The objective of this five-year project is to lay the foundation for a new method of identifying genes to improve oat breeding. The project will create an experimental oat variety with a transposon, which is a class of genetic element that can “jump” to different locations within a genome. The transposon will be programmed to jump in/out of genes of interest, turning them on/off. This will allow identifying the genes of interest by finding the location of the transposon. At the current stage, marker-assisted selection (MAS) breeding in oat is in infancy and new unique resources are required to deal with the large genome of oat. This research, if successful, will lead to the identification of genome location carrying important traits such as beta glucan and oil contents. It will then be possible to identify these traits at very early seedling stage then breeders can easily use these lines for further breeding programs.

A key recommendation from the SaskOats study of world oat markets highlighted the need to investigate the potential to recapture the USA oat feed market. SaskOats/POGA then conducted a USA Equine Feed Study which clearly demonstrated the potential of these markets.

The Oat Sustainability Project (OSP), formerly called the Equine Feed Oat Project, is an initiative of POGA and was created in 2009 to research, educate and communicate information about oats to the equine industry.

To provide horse owners with important factual information, POGA commissioned a review of published research about oats used in horse feed. The review was performed by one of the leading equine nutrition experts in the industry, Dr. Laurie Lawrence, of the University of Kentucky, Department of Animal and Food Sciences. Dr. Lawrence reviewed over 260 published research documents covering nutritional value of oats in the equine diet and her research concludes that oats are one of the best grain to feed horses.

The OSP has been working with the equine industry via various methods, including partnerships with equine associations, publications and experts in the field. The OSP wishes to educate as many members of the equine industry as possible about the

benefits of oats. In summer 2015, the OSP was redesigned to focus on online advertising, TV and social media to better target the market and at the end of July 2016 this project ended.

POGA has also has two additional equine research projects: "Can oat beta-glucan improve the responsiveness of the immune system in horses?" (Co-funded by The Government of Canada through the AgriInnovation Program) which was completed in March 2016. Unfortunately, the findings of this study, indicated that oat beta-glucan supplied in the form of a high beta-glucan oat cultivar or as a powdered concentrate had no advantage over traditional feed oats. Although oat beta-glucan did not appear to mitigate the response of the immune system to physiological stress, the project did demonstrate that horses were willing to consume an oat cultivar bred to be high in beta-glucan and were able to maintain health and body condition similar to that observed when fed regular feed oats or corn as the dominant cereal grain in the diet. Many oat producers have interest in growing oat varieties that are high in beta-glucan as a value-added product for the human food market. Knowledge that high beta-glucan oat varieties are also suitable for inclusion in equine feeds broadens the outlets available to farmers and millers who desire to invest in such varieties.

The last equine project currently being funded by POGA is "Oats Improve the Gastrointestinal Health of Horses," at Penn State University and co-funded by WGRF. This study is investigating whether the inclusion of whole oats at varying concentrations in the horse's diet will influence a comprehensive group of response variables associated with the horse's gastrointestinal health. This project will be completed in the 2016-2017 year and is partially funded by WGRF.

Finally, in December of 2015 SaskOats, in conjunction with POGA, hosted a "Future of Oat Forum" in Moose Jaw, SK. It covered the priorities in research, including breeding, production, and market development. This event included farmers, researchers, Federal and Provincial government representatives and oat millers, handlers and specialty providers. The forum is the basis for a new strategic plan to help the Oat Commission develop long term plans to benefit the oat sector and to steward funds with integrated long-term solutions in mind. The Saskatchewan Industry Organization Development Fund (IODF) co-funded this event.

One strong recommendation from the oat forum was to improve the Oat Grower Manual and have more extension studies. As part of this, POGA has contracted Jim Dyck of Oat Advantage to update on the online grower manual in 2017. The Saskatchewan Industry Organization Development Fund (IODF) is co-funding this project.

In addition to these projects, POGA completed a Long Term International Strategy and submitted it to the Federal Government with long term plans to increase the International presence of Canadian Oats.

## ***Summary***

SaskOats has successfully contributed to the profile, representation and profit of Saskatchewan oat growers. Since 2008, oat growers in Western Canada have spent less than \$0.18 of every dollar spent on research and marketing. The great collaboration of industry, government and the oat organizations is displayed by the amount of research and marketing work that is able to continue for our small crop.

SaskOats will continue to develop the strategic relationship with POGA and work towards multiplying the producer investments in SaskOats with both industry and government partnerships to expand oat profitability and profile both locally and around the world.

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**Payee List for SaskOats 2015-2016 Year**

**Personal Services (Total received by Directors, All others threshold is specified)**

**Directors**

**Honorariums**

|                    |    |       |
|--------------------|----|-------|
| Willy Zuchan       | \$ | 3,000 |
| Elroy Trithardt    | \$ | 1,900 |
| Alan Butuk         | \$ | 1,450 |
| Bryon W. Hainstock | \$ | 800   |
| Brad Goudy         | \$ | 800   |
| Chris Rundel       | \$ | 400   |

**Out of Pocket**

|                    |    |       |
|--------------------|----|-------|
| Willy Zuchan       | \$ | 2,268 |
| Elroy Trithardt    | \$ | 2,004 |
| Alan Butuk         | \$ | 1,051 |
| Bryon W. Hainstock | \$ | 623   |
| Brad Goudy         | \$ | 553   |
| Chris Rundel       | \$ | 627   |

**Research & Development (\$5,000.00 threshold)**

|                              |    |         |
|------------------------------|----|---------|
| University of Saskatchewan   | \$ | 105,788 |
| SK Variety Performance Group | \$ | 12,000  |

**Extension (\$5,000.00 threshold)**

**Education**

|                              |    |        |
|------------------------------|----|--------|
| Agriculture in the Classroom | \$ | 15,200 |
|------------------------------|----|--------|

**Supplier Payments (\$5,000.00 threshold)**

**Accounting**

|                |    |       |
|----------------|----|-------|
| Collins Barrow | \$ | 5,390 |
|----------------|----|-------|

**Levy Central Fees**

|                                    |    |        |
|------------------------------------|----|--------|
| Agricultural Council of Sask. Inc. | \$ | 25,410 |
|------------------------------------|----|--------|

**Market Development (\$5,000.00 threshold)**

|   |    |         |
|---|----|---------|
| R&D and Communications funded via<br>POGA | \$ | 249,986 |
|---|----|---------|

**Other Payments (\$20,000 threshold)**

\$ -

**SaskOats 2016-2017 Budget**

**Revenue**

|   |                   |
|---|-------------------|
| Check-off levy (\$.50/tonne on 1,656,000 tonne) | \$682,000         |
| Check-off refunds @ 6%                          | <u>(\$40,920)</u> |
|   | \$641,080         |
| Interest Income                                 | <u>\$16,500</u>   |
|   | <u>\$657,580</u>  |

**Expenses**

|  |                            |
|--|----------------------------|
| Board of Directors   | \$15,500                   |
| Communications   | \$16,750                   |
| Levy Administration Fee  | \$23,500                   |
| Producer Meetings  | \$9,000                    |
| Proportionate expenses of POGA   | \$554,000                  |
| Research and Development Grants  | \$133,100                  |
| General and Administrative (Audit, Legal, Elections,<br>memberships, etc.) | \$8,500                    |
| Dispersion of Will of Morris Sebulsky                                      | <u>\$180,000</u>           |
|  | <u>\$940,350</u>           |
| <b>Excess of revenues over expenses</b>                                    | <b><u>(-\$282,770)</u></b> |